



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Coker's Pedigreed Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE SAID CERTIFIED SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT

'Coker 797'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 10th day of December in the year of our Lord one thousand nine hundred and eighty-one.

Attest:

Samuel H. Lane

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

John R. Block
Secretary of Agriculture



APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1a. TEMPORARY DESIGNATION OF VARIETY 9/8/81 T-76 -2051 Coker 79-17		1b. VARIETY NAME Coker 797		FOR OFFICIAL USE ONLY PV NUMBER 8000145	
2. KIND NAME Wheat		3. GENUS AND SPECIES NAME Triticum Aestivum		FILING DATE 8/4/80	TIME 12:00 <input checked="" type="radio"/> A.M. <input type="radio"/> P.M.
4. FAMILY NAME (BOTANICAL) Gramineae		5. DATE OF DETERMINATION 1978		FEE RECEIVED \$ 500.00 \$ 250.00 \$	DATE 8/4/80 10/5/81
6. NAME OF APPLICANT(S) Coker's Pedigreed Seed Co,		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) P.O. Box 340 Hartsville, South Carolina 29550		8. TELEPHONE AREA CODE AND NUMBER (803) 332-7531	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Corporation		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION South Carolina		11. DATE OF INCORPORATION July 12, 1918	
12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers: Howard F. Harrison P.O. Box 340 Coker's Pedigreed Seed Co. Hartsville, South Carolina 29550					
13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED: <input checked="" type="checkbox"/> 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.) <input checked="" type="checkbox"/> 13B. Exhibit B, Novelty Statement. <input checked="" type="checkbox"/> 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.) <input checked="" type="checkbox"/> 13D. Exhibit D, Additional Description of the Variety.					
14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? (See Section 83(a). (If "Yes," answer 14B and 14C below.) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
14B. Does the applicant(s) specify that this variety be limited as to number of generations? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		14C. If "Yes," to 14B, how many generations of production beyond breeder seed? <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED			
15. Does the applicant(s) agree to the publication of his/her (their) name(s) and address in the Official Journal? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					

16. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

JULY 25, 1980
(DATE)Howard F. Harrison
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

0961 8 2 70F

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and \$250.00 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, National Agricultural Library, Beltsville, Maryland 20705. (See Section 180.175 of the regulations and rules of practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in Section 41(a) of the Act and (2) the date a decision was made to increase the seed.

- 13a Give (1), the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. (2), the details of subsequent stages of selection and multiplication. (3), the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4), evidence of stability.

- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties; (1) identify these varieties and state all differences objectively; (2) Attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

- 13c Fill in the Exhibit C, Objective Description form for all characteristics, for which you have adequate data.

- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe; such as; plant habit, plant color, disease resistance, etc.

14A If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled or published or the certificate has been issued. However, if the applicant specifies "NO", he may change his choice. (See Section 180.15 of the Regulations and Rules of Practice.)

COKER 797

EXHIBIT A

ORIGIN AND BREEDING HISTORY OF THE VARIETY

- 1967-68 - Last Cross Made.
Coker 68-15/5/Coker 57-6/Hd.¹/4/Nadadores 63/3/Hd.¹/P.D.²/
Coker 57-6*2/P.D.²
- 1968 - Growth Chamber F1 Plants.
- 1968-69 - F2 Spaced Plants.
- 1969-70 - F3 Spaced Plants.
- 1970-71 - F4 Bulk.
- 1971-72 - F5 Headrows.
- 1972-73 - F6 Single Headrow To Yield Test.
- 1973-74 - Headrow From F6.
- 1974-75 - F7 Headrow Bulk.
- 1975-76 - F8 Headrow.
- 1976-77 - F9 Yield Test.
- 1977-78 - F10 Entry In Uniform Southern Wheat Nursery.
- 1978-79 - Increase Block 79-17.

"After observation in the field, 'Coker 797' has been determined to be genetically stable and uniform." 9/4/81

From inspection of headrows, the following variants have been observed:

Tall Types	.12%	11 cm.
Awed Types	.05%	
Bronze Chaff	.02%	

¹ 'Hadden' ² 'Purdue Dwarf' = Purdue 4946 A4-18-2-10-1

EXHIBIT B

NOVELTY STATEMENT

Coker 797 most nearly resembles Coker 68-15, but differs
in the following characteristics:

	Powdery Mildew	April Head Date
Coker 68-15	S	-20.66
	<i>9/8/81</i>	
Coker 797	R	-14.0 ** F= 39.9

8000145

COMPARATIVE HEADING DATES EXPRESSED AS APRIL DATES OF COKER 68-15 AND COKER 797 IN SIX TESTS.

	1980	1980	1979	1979	1978	1978	6	
VARIETY	TEST 1	TEST 2	TEST 1	TEST 2	TEST 1	TEST 2	TOTAL	AVERAGE
COKER 68-15	4-21	4-21	4-20	4-21	4-23	4-18	124	20.66
COKER 797	4-14	4-14	4-11	4-13	4-17	4-15	84	14.00

** F = 39.9

Sig. at 1%

OBJECTIVE DESCRIPTION OF VARIETY

WHEAT (TRITICUM SPP.)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

Coker's Pedigreed Seed Company
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

P.O. Box 340

Hartsville, South Carolina 29559

FOR OFFICIAL USE ONLY

PVPO NUMBER

8000145

VARIETY NAME OR TEMPORARY
DESIGNATION

Coker 797

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g., or) when number is either 99, or less or 9 or less.

1. KIND:

 1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

2. TYPE:

 1 = SPRING 2 = WINTER 3 = OTHER (Specify) 1 = SOFT 2 = HARD 3 = OTHER (Specify) 1 = WHITE 2 = RED 3 = OTHER (Specify)

3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:

 FIRST FLOWERING LAST FLOWERING

4. MATURITY (50% Flowering):

 NO. OF DAYS EARLIER THAN 1 = ARTHUR 2 = SCOUT 3 = CHRIS 7 = Coker 68-915
 NO. OF DAYS LATER THAN 4 = LEMHI 5 = NUGAINES 6 = LEEDS

5. PLANT HEIGHT (From soil level to top of head):

 CM. HIGH
 CM. TALLER THAN 1 = ARTHUR 2 = SCOUT 3 = CHRIS
 CM. SHORTER THAN 4 = LEMHI 5 = NUGAINES 6 = LEEDS
7 = Arthur 71

6. PLANT COLOR AT BOOTING (See reverse):

 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN R.H.S. 137 C

7. ANTHUR COLOR:

 1 = YELLOW 2 = PURPLE

8. STEM:

 Anthocyanin: 1 = ABSENT 2 = PRESENT Waxy bloom: 1 = ABSENT 2 = PRESENT
 Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT Internodes: 1 = HOLLOW 2 = SOLID
 NO. OF NODES (Originating from node above ground) CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

9. AURICLES:

 Anthocyanin: 1 = ABSENT 2 = PRESENT Hairiness: 1 = ABSENT 2 = PRESENT

10. LEAF:

 Flag leaf at booting stage: 1 = ERECT 2 = RECURVED 3 = OTHER (Specify) Flag leaf: 1 = NOT TWISTED 2 = TWISTED
 Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT
 MM. LEAF WIDTH (First leaf below flag leaf) CM. LEAF LENGTH (First leaf below flag leaf)

11. HEAD:

☐ 2 Density: 1 = LAX 2 = DENSE ☐ 1 Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE 4 = OTHER (Specify) _____

☐ 2 Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED

☐ 2 Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED 5 = BROWN 6 = BLACK 7 = OTHER (Specify): _____

☐ 0 ☐ 8 CM. LENGTH ☐ 1 ☐ 5 MM. WIDTH

12. GLUMES AT MATURITY:

☐ 3 Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.) 3 = LONG (CA. 9 mm.) ☐ 3 Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.) 3 = WIDE (CA. 4 mm.)

☐ 1 Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED 4 = SQUARE 5 = ELEVATED 6 = APICULATE ☐ 1 Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

13. COLEOPTILE COLOR:

☐ 1 1 = WHITE 2 = RED 3 = PURPLE

14. SEEDLING ANTHOCYANIN:

☐ 1 1 = ABSENT 2 = PRESENT

15. JUVENILE PLANT GROWTH HABIT:

☐ 2 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

16. SEED:

☐ 1 Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL ☐ 1 Cheek: 1 = ROUNDED 2 = ANGULAR

☐ 2 Brush: 1 = SHORT 2 = MEDIUM 3 = LONG ☐ 1 Brush: 1 = NOT COLLARED 2 = COLLARED

☐ 2 Phenol reaction (See instructions): 1 = IVORY 2 = FAWN 3 = LT. BROWN 4 = BROWN 5 = BLACK

☐ 3 Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) _____

☐ 0 ☐ 6 ☐ 8 MM. LENGTH ☐ 0 ☐ 3 MM. WIDTH ☐ 0 ☐ 3 GM. PER 100 SEEDS 31.5 per M

JUL 28 1980

17. SEED CREASE:

☐ 1 Width: 1 = 60% OR LESS OF KERNEL 'WINOKA' 2 = 80% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY AS WIDE AS KERNEL 'LEMHI'

☐ 2 Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'CHRIS' 3 = 50% OR LESS OF KERNEL 'LEMHI'

18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ 1 STEM RUST (Races) 15.15B-2,56 ☐ 2 LEAF RUST (Races) ☐ 0 STRIPE RUST (Races) ☐ 0 LOOSE SMUT

☐ 2 POWDERY MILDEW ☐ 0 BUNT ☐ OTHER (Specify) _____

19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ 0 SAWFLY ☐ 0 APHID (Bydv.) ☐ 0 GREEN BUG ☐ CEREAL LEAF BEETLE

☐ OTHER (Specify) _____ HESSIAN FLY RACES: ☐ 1 GP ☐ A ☐ 1 B ☐ C ☐ D ☐ 1 E ☐ F ☐ G

20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Coker 68-15	Seed size	Coker 68-15
Leaf size	"	Seed shape	"
Leaf color	"	Coleoptile elongation	"
Leaf carriage	"	Seedling pigmentation	"

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

- (a) L.W. Briggie and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.
- (b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.

COKER 797 WHEAT

EXHIBIT D

ADDITIONAL DESCRIPTION OF THE VARIETY

Coker 797 is a Soft Red Winter Wheat Variety developed by Coker's Pedigreed Seed Company from a complex cross (Exhibit A) .

Juvenile growth habit is semi-~~erect~~ ^{9/8/81}. Plant color is medium green approximating R.H.S. 137C. Flag leaves are slightly recurved and twisted. Exsertion of head from flag leaf to first rachis node averages 13.4 cm. with an average of 9 cm. to 19cm.

Spikes are white, apically awnletted, the ^{9/8/81} longest of which are about 35 mm. Fairly compact heads average about 8 mm wide and 15 cm. long.

Glumes are glabrous, long, wide with shoulder wanting, beak obtuse.

Seed are red with rounded cheeks medium brush with collar often indistinct.

Coker 797 is susceptible to soil-borne mosaic virus at Hartsville, S.C. It is resistant to the prevalent races of powdery mildew and adult resistance to leaf rust.

Range of adaptation is most of the Southeastern Coastal Plain and the Gulf Coast States south of I-20.

Variants in this variety are as follows:

Tall - .12%

Awned - .05% ^{9/8/81} noted 5/4/81 - conforms w/Ex. A.

Bronze Chaff - .02%

Table 16. Ranking of Uniform Southern Soft Red Winter Wheat Nursery entries according to combined quality score, 1980 crop, and rankings for 1974-1976 crops.

Lab. No.	Entry	Combined Quality Score Rank				
		1980	1979	1978	1977	1976
80363	Md 55-114-03	1	1			
377	1273-2 (NAPB)	2				
361	Wheeler	3	7			
370	Md 55-286-37	4				
376	Ar 155-5	5				
369	Md 55-36-45	6				
378	1283-7 (NAPB)	7				
375	Ar 38-1-3-5-5	8				
358	Tyler	9	9-	5		
371	F1 7271A103	10				
381	Coker 79-14	11				
360	Va 76-52-12	12	16			
364	Arthur 71	13	19		1	13
383	Coker 797	14				
368	Pioneer X6890	15				
356	Roy	16	20	21	13	
372	F1 72185A101-5	17				
355	Coker 76-22	18	17-	11-	19	
354	Holley	19	17-	17	17	12
367	Florida 301	20	12			
357	Omega 78	21	14	20		
362	Ar 150-31	22	9-			
380	Coker 79-21	23				
382	Coker 79-16	24				
374	H73-3-3-3-2	25				
366	McNair 3271	26	26			
359	Stacy	27	23			
373	TX 0-74-39	28				
379	Coker 79-20	29				
365	McNair 3270	30	30			

Note: - = 1/2

State of New York
County of New York

TRANSFER OF OWNERSHIP

In consideration of the formation of a research partnership, which is named CR Seeds with its principal offices at 900 Darlington Highway, Hartsville, S.C. 29550, and of which Coker's Pedigreed Seed Company, Hartsville, S.C., is a partner, Coker's Pedigreed Seed Company does hereby convey to CR Seeds, free from all encumbrances, ownership of the following protected varieties:

Wheat Varieties

<u>Variety Name</u>	<u>Plant Variety Certificate No.</u>	<u>Issue Date</u>
Coker 68-15	7200014	March 6, 1974
Coker 68-19	7200015	March 6, 1974
Coker 747	76TQ015	September 9, 1978
Coker 762	8000152	December 12, 1981
Coker 797	8000145	December 12, 1981

Oat Varieties

<u>Variety Name</u>	<u>Plant Variety Certificate No.</u>	<u>Issue Date</u>
Coker 227	7500007	October 20, 1977
Coker 716	7900003	December 28, 1978
Coker 234	7500008	October 26, 1977
Four Twenty-Two	7700085	April 12, 1979
Big Mac	8200121	August 19, 1982
Mesquite	8200122	August 19, 1982

Soybean Varieties

<u>Variety Name</u>	<u>Plant Variety Certificate No.</u>	<u>Issue Date</u>
Coker-Hampton 266A	7100022	September 6, 1973
Coker 136	7300091	October 18, 1973
Coker 338	7400058	October 29, 1976
Coker 237	7800034	July 13, 1978
Coker 488	7900035	July 13, 1978
Coker 156	7900043	November 27, 1979
Coker 317	8100095	November 19, 1981
Coker 368	8200140	August 31, 1983

COKER'S PEDIGREED SEED CO.

By: E. Joe Dahmer
E. Joe Dahmer, President

Date: February 29, 1984

Sworn and subscribed to before me
this 29th day of February, 1984.

Ruth Silber
Notary Public ~~for South Carolina~~

RUTH SILBER
NOTARY PUBLIC, State of New York
No. 31-8994050
Qualified in New York County
Commission Expires March 30, 1984

State of New York
County of New York ss:

TRANSFER OF APPLICATIONS FOR
PLANT VARIETY PROTECTION

In consideration of the formation of a research partnership, which is named CR Seeds with its principal offices at 900 Darlington Highway, Hartsville, S.C. 29550, and of which Coker's Pedigreed Seed Company is a partner, Coker's Pedigreed Seed Company does hereby convey to CR Seeds, free from all encumbrances, ownership of the following applications for Plant Variety Protection:

Wheat Varieties

<u>Variety Name</u>	<u>Application No.</u>	<u>Date of Filing</u>
Coker 916	830036	January 11, 1983
Coker 983	Application Mailed to PVP Office on	February 17, 1984

Oat Varieties

<u>Variety Name</u>	<u>Application No.</u>	<u>Date of Filing</u>
Coker 820	Application Mailed to PVP Office on	February 24, 1984

Soybean Varieties

<u>Variety Name</u>	<u>Application No.</u>	<u>Date of Filing</u>
Coker 393	8400018	November 18, 1983
Coker 355	8400019	November 18, 1983

COKER'S PEDIGREED SEED CO.

By: E. Joe Dahmer
E. Joe Dahmer, President

Date: Feb. 29, 1984

Sworn and subscribed to before me
this 29th day of February, 1984.

Ruth Silber
Notary Public ~~for South Carolina~~

~~(My commission expires March 20, 1990.)~~

RUTH SILBER
NOTARY PUBLIC, State of N.Y.
No. 31-8994050
Qualified in New York Court
Commission Expires March 30, 1984

ASSIGNMENT

WHEREAS, CR Seeds, a general partnership having its principal office at 900 Darlington Highway, Hartsville, South Carolina 29550 ("Partnership"), is the owner of the entire right, title and interest to the United States Plant Variety Protection Certificates and applications for such Certificates (collectively "Certificates") listed on Appendix A attached hereto;

WHEREAS, the partners of CR Seeds, Rohm and Haas Seeds Inc., a Delaware corporation having its principal office at Independence Mall West, Philadelphia, PA 19105 ("RHS") and Coker's Pedigreed Seed Company, a South Carolina corporation with its principal office at 900 Darlington Highway, Hartsville, SC 29550 ("CPS"), are each desirous of acquiring a one-half undivided interest in the varieties and Certificates listed on Appendix A;

NOW, THEREFOR, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, CR Seeds does hereby sell, assign and transfer to RHS a one-half undivided interest in and to the varieties and Certificates and to CPS a one-half undivided interest in and to the varieties and Certificates for each of their use and benefit and for each of their successors and assigns.

IN TESTIMONY THEREOF, CR Seeds intending to be legally bound has caused this assignment to be executed by its duly authorized officer.

CR Seeds

By: E. Joe Dahmer
President

State of South Carolina)
County of Darlington) SS

On this 30th day of December, 1986, before me appeared E. Joe Dahmer of CR Seeds, the person who signed this instrument who acknowledged that he signed it as a free act on behalf of CR Seeds with authority to do so.

Logan B. Elliott
Notary Public

My commission expires 4-14-91

APPENDIX A

Soft Red Winter Wheat Varieties

<u>Variety Name</u>	<u>U.S. Plant Variety Certificate No.</u>	<u>Issue Date</u>
Coker 68-15	7200014	Mar. 6, 1974
Coker 68-19	7200015	Mar. 6, 1974
Coker 747	76TQ015	Sept. 9, 1978
Coker 762	8000152	Dec. 12, 1981
Coker 797	8000145	Dec. 12, 1981
Coker 916	8300036	Sept. 27, 1985
Coker 983	8400058 ¹	Feb. 27, 1984 ¹
McNair 701	7200038	Feb. 26, 1974
McNair 4823	7200037	April 8, 1975
RHS 8232	8400136 ¹	July 16, 1984 ¹
9227	8600009 ¹	Oct. 22, 1985 ¹
9323	8600010 ¹	Oct. 22, 1985 ¹

1. Application number and filing date.

Winter Oat Varieties

<u>Variety Name</u>	<u>U.S. Plant Variety Certificate No.</u>	<u>Issue Date</u>
Coker 227	7500007	Oct. 20, 1977
Coker 716	7900003	Dec. 28, 1978
Coker 820	8400059 ¹	Feb. 28, 1984 ¹
Coker 234	7500008	Oct. 26, 1977
Four Twenty Two	7700085	Apr. 12, 1979
Big Mac	8200121	Aug. 19, 1982
Mesquite	8200122	Aug. 19, 1982

1. Application number and filing date.

Soybean Varieties

Coker Hampton 266A	7100022	Sept. 6, 1973
Coker 136	7300091	Oct. 18, 1973
Coker 338	7400058	Oct. 29, 1976
Coker 237	7800034	July 13, 1978
Coker 488	7800035	July 13, 1978
Coker 156	7900043	Nov. 27, 1979
Coker 317	8100095	Nov. 19, 1981
Coker 368	8200140	Aug. 31, 1983
Coker 425	8400077	May 31, 1985
Coker 485	8400078	May 31, 1985
Coker 393 (Q327-4270)	8400018	Jan. 25, 1985
Coker 355 (XP5878)	8400019	Jan. 25, 1985
Coker 627	8700001 ¹	Oct. 3, 1986 ¹
Coker 686	Pending ¹	Dec. 19, 1986

1. Application number and filing date.

<u>Variety Name</u>	<u>U.S. Plant Variety Certificate No.</u>	<u>Issue Date</u>
AP55	8100089	Feb. 18, 1982
AP70	7800081	Feb. 15, 1979
AP71	8100090	Sept. 24, 1981
Lancer	7600044	Sept. 29, 1976
RA-526	7500067	Dec. 12, 1975
RA-604	7900008	Mar. 1, 1975
RA-680	8100097	Apr. 15, 1982
RA-502	8200160	Aug. 31, 1983
RA-606	8200161	Oct. 27, 1983
RA-580	8300075	Apr. 30, 1984
Mitchell	7300054	Oct. 30, 1974
RA-401	7800030	June 22, 1978
RA-601	7800031	June 22, 1978
Mitchell 450	7900046	June 14, 1979
RA-481	8000054	Mar. 26, 1981
RA-402	8000093	July 31, 1981
Mitchell 410	8200162	Oct. 27, 1983
RA-403	8200163	Oct. 27, 1983

<u>Variety Name</u>	<u>Certificate No.</u>	<u>Issue Date</u>
RA-451	8500008 ¹	Oct. 10, 1984 ¹
RA-452	8500009 ¹	Oct. 10, 1984 ¹
RA-405	8500010 ¹	Oct. 10, 1984 ¹
RA-501 A	76TQ006	May 11, 1978
RA-480	7900007	Feb. 15, 1979

1. Application number and filing date.

ASSIGNMENT

WHEREAS, Rohm and Haas Seeds Inc., a Delaware corporation having its principal office at Independence Mall West, Philadelphia, PA 19105 ("RHS"), is the owner of a one-half undivided interest in and to the United States Plant Variety Protection Certificates and applications for such Certificates (collectively "Certificates") listed on Appendix A attached hereto:

WHEREAS, Coker's Pedigreed Seed Company, a South Carolina corporation with its principal office at 900 Darlington Highway, Hartsville, SC 29550 ("CPS"), is desirous of acquiring this one-half undivided interest in the aforementioned varieties and Certificates;

NOW, THEREFOR, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, RHS does hereby sell, assign and transfer to CPS RHS's one-half undivided interest in and to the varieties and Certificates for CPS's use and benefit and for its successors and assigns.

IN TESTIMONY THEREOF, RHS intending to be legally bound has caused this assignment to be executed by its duly authorized officer.

ROHM AND HAAS SEEDS INC.

By: Howard A. Mergelkamp
Assistant Treasurer

State of Pennsylvania)
County of Philadelphia) SS

On this 31st day of December, 1986, before me appeared Howard A. Mergelkamp of Rohm and Haas Seeds Inc., the person who signed this instrument who acknowledged that he signed it as a free act on behalf of Rohm and Haas Seeds Inc. with authority to do so.

Elizabeth A. Smith

ELIZABETH A. SMITH Notary Public

Notary Public, Phila., Phila. Co

My Commission Expires Oct. 14, 1989

My commission expires _____.

8000145

ASSIGNMENT OF PLANT VARIETY PROTECTION CERTIFICATES

WHEREAS, COKER'S PEDIGREED SEED COMPANY, a South Carolina corporation ("Coker's"), having its offices at 900 Darlington Highway, Hartsville, South Carolina 29550, has adopted and used and is the sole and exclusive owner of certain United States Plant Variety Protection Certificates and similar rights under laws of countries other than the United States as listed in Exhibit A hereto:


WHEREAS, COKER'S PEDIGREED SEED CO. and NORTHRUP KING CO., a Delaware corporation ("NK"), have entered into an Asset Purchase Agreement, dated July 20, 1988, providing for the purchase and sale of substantially all of the assets and business of Coker's and the assumption of certain of Coker's liabilities and obligations by NK; and

WHEREAS, NK desires to acquire the right, title and interest in, to and under the Plant Variety Protection Certificates listed on Exhibit A hereto and the pending applications hereto (collectively, the "Plant Variety Protection Certificates").

IN WITNESS WHEREOF, Coker's has caused this instrument to be executed by its duly authorized representative as of the 20th day of July, 1988.

By: E. Joe Dahmer
E. Joe Dahmer
President

On this 26th day of July, 1988, before me, a Notary Public in and for the County aforesaid, the undersigned officer, E. Joe Dahmer, personally appeared and acknowledged himself to be the President of Coker's Pedigreed Seed Co., and that he executed the foregoing instrument for the purposes therein.

 **TIMOTHY M. BANGASSER**
NOTARY PUBLIC — MINNESOTA
HENNEPIN COUNTY
My Commission Expires May 22, 1992

Yvonne M. Bagnasser
Notary Public

Cotton Varieties, Continued

<u>Variety Name</u>	<u>U.S. Plant Variety Certificate Number</u>	<u>Issue Date</u>	<u>Term (Yrs.)</u>
Coker 3131	8100019	Sept. 24, 1981	18
Coker 208	8300082	Sept. 29, 1983	18
Coker 139	8700070	Dec. 18, 1987	18

Soft Red Winter Wheat Varieties

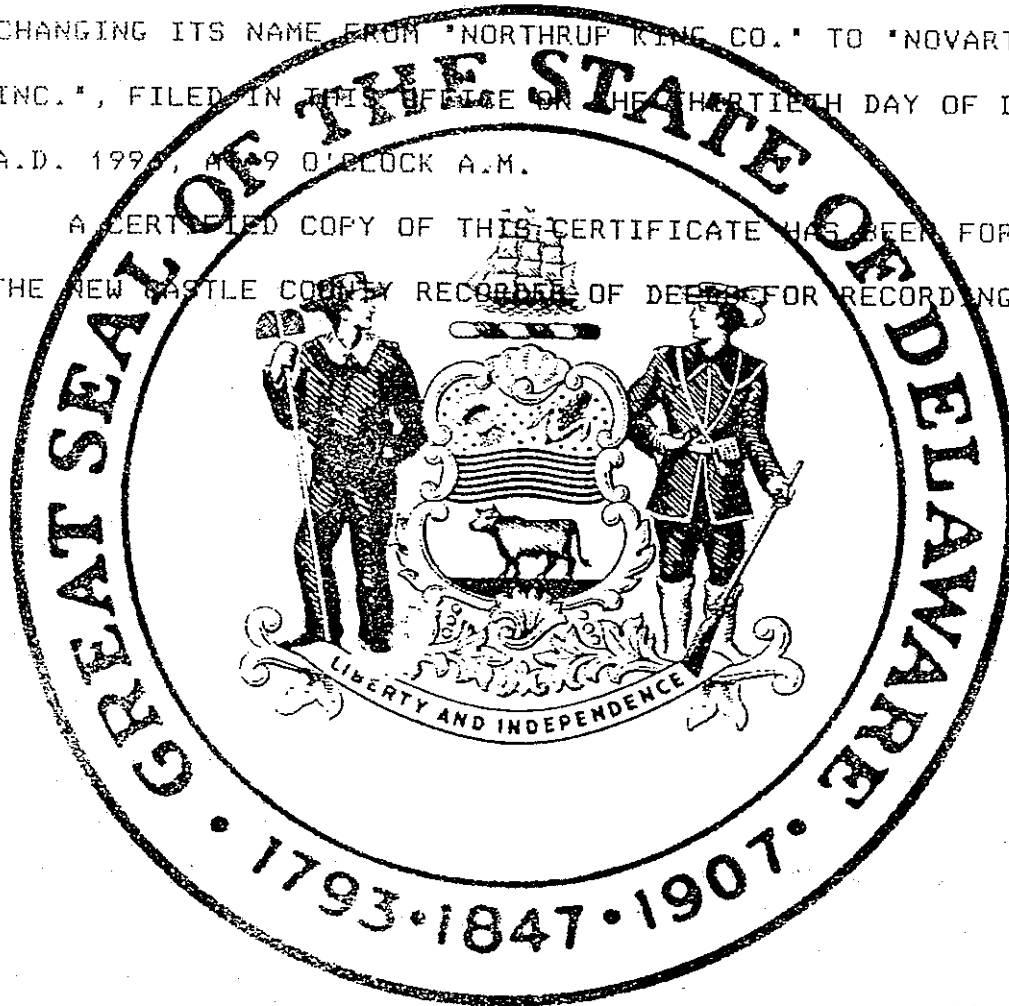
Coker 68-15	7200014	Mar. 6, 1974	17
Coker 68-19	7200015	Mar. 6, 1975	17
Coker 747	76TQ015	Sept. 20, 1978	17
Coker 762	8000152	Dec. 10, 1981	18
Coker 797	8000145	Dec. 10, 1981	18
Coker 916	8300036	Sept. 27, 1985	18
Coker 983	8400058	Dec. 31, 1980	18
McNair 701	7200038	Feb. 26, 1974	17
McNair 4823	7200037	Apr. 8, 1975	17
RHS 8232	8400136	Oct. 31, 1985	18
9227	8600009	May 31, 1988	18
9323	8600010	Apr. 29, 1988	18
McNair 1813	7500006	May 1, 1975	17
McNair 1003	7700084	Aug. 10, 1978	17
Coker 833	8800005(1)	Oct. 2, 1987(1)	-
Coker 9733	8700159(1)	July 16, 1987(1)	-
Coker 9766	8700160(1)	July 17, 1987(1)	-

(1) Application number and filing date.

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "NORTHROP KING CO.", CHANGING ITS NAME FROM "NORTHROP KING CO." TO "NOVARTIS SEEDS, INC.", FILED IN THIS OFFICE ON THE THIRTIETH DAY OF DECEMBER, A.D. 1996, AT 9 O'CLOCK A.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.



Edward J. Freel

Edward J. Freel, Secretary of State

0829320 B100

960389892

AUTHENTICATION:

8267947

DATE:

12-31-96

CERTIFICATE OF AMENDMENT OF CERTIFICATE OF INCORPORATION
OF
NORTHROP KING CO.

It is certified that:

1. The name of the corporation (hereinafter called the "Corporation") is Northrup King Co.

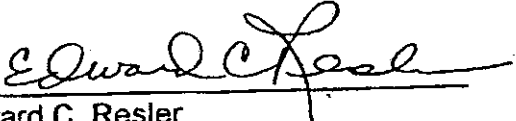
2. The Certificate of Incorporation of the Corporation is hereby amended by striking out Section 1 thereof and by substituting in lieu of said Section the following new Section.

1. The name of the Corporation is Novartis Seeds, Inc.

3. The amendment of the certificate of incorporation herein certified has been duly adopted and written consent has been given in accordance with the provisions of Sections 228 and 242 of the General Corporation Law of the State of Delaware.

4. The effective date of the amendment herein certified shall be January 1, 1997.

Signed on December 27, 1996.


Edward C. Resler
Vice President & Secretary

with Holley, they exhibited high ESI values although Holley yielded well in spite of this shortcoming. It is felt that flour yield potential, apparently a heritable property, is an important quality factor in the economic potential of a breeding line or cultivar.

Baking Quality - Thirteen entries, of which eight appeared in the series for the first time, received baking quality scores higher than the Arthur 71 standard. The entry receiving the highest score was Md 55-114-03. Its AWRC value was very low and it baked the largest cookies within the set. Its cake volume was questionably smaller however. These results paralleled those of last year when it also ranked first in baking quality. Other entries with high scores, in order of ranking were Md 55-286-37, NAPB 1273-2, Wheeler, Ar 38-1-3-5-5, Ar 155-5, Coker 797, NAPB 1283-7, Md 55-36-45, Tyler, FL 7271A103, Coker 79-4 and Va 76-52-12. Seven others were in the B category, and these also could be considered to have satisfactory baking quality in relation to the Arthur 71 reference entry performance.

Entries Md 55-114-03 and Wheeler were the only entries with flour AWRC less than 50%, but the AWRC value for Arthur 71 was bettered by 17 entries. Those with values significantly higher than Arthur 71 were those baking smaller cookies and were regarded as exhibiting less soft wheat quality potential. Entries placed in baking quality categories of D or F were in the group.

Combined Quality - Table 16 presents a list of entries in decreasing order of ranking by combined quality score, together with entry ranks in previous years. Entry Md 55-114-03 exhibited outstanding milling and baking potential for the second year in a row, and ranked first again. It was followed by NAPB 1273-2, entered in the Nursery for the first time. This entry scored well in both milling and baking. Wheeler ranked seventh last year but entries which scored higher that year (except Md 55-114-03) were absent this year. It ranked higher than the standard this year, as it did last year. Md 55-36-45, NAPB 1283-7, and Ar 38-1-3-5-5 followed Wheeler in that order in combined quality ranking. If future testing confirms these quality potentials, the quality picture would be bright. Tyler, ranked ninth this year, was followed by two newcomers, FL 7271A103 and Coker 79-14, both of which ranked higher than the Arthur 71 standard.

Entry Ar 150-31 which responded well last year (tied with Tyler) fell to 22nd in this year's ranking, and three entries which showed less potential last year repeated their performance this time. This group included Stacy and the two McNair entries 3270 and 3271.

Table 15. Wheat, milling, and flour analytical and baking data, and quality scores, Uniform Southern Soft Red Winter Wheat Nursery entries, 1980 crop.

LAB NO.	ENTRY	MILLING QUALITY SCORE	BAKING QUALITY SCORE	COMBINED QUALITY SCORE	MOIS. PCT.	TEST WT. KG/HL	PROT. PCT.	ASH PCT.	WHEAT			BREAK FLOUR YIELD PCT.	FLOUR YIELD PCT.	MILLAB. SCORE
									PART. SIZE INDEX PCT.	ENDOSP. INDEX PCT.	RED. PASS PCT.			
UNIFORM SOUTHERN SOFT RED WINTER WHEAT NURSERY STANDARD = 80364 (ARTHUR 71)														
STANDARD														
80376	1 HALEY	100.0 A	100.0 A	100.0 A	10.4	80.2	11.6	1.65	41.2	11.1	12	29.5	76.1	105.2
80377	2 COVER 76-22	94.9 C	97.3 B	94.9 C	10.4	80.6	10.7	1.67	39.5*	13.7Q	14	31.0	75.8	96.1
80378	3 ROY	96.9 B	98.9 B	96.9 B	10.4	76.1Q	10.8	1.61	45.7	11.7*	13	34.8	76.0	99.4
80379	4 OREGON 78	97.6 B	98.7 B	97.6 B	10.1	74.5Q	10.6	1.65	42.7	10.3	11	34.1	76.2	101.4
80380	5 TYLER	92.8 C	98.8 B	92.8 C	10.4	78.5Q	11.5	1.64	40.2	12.4Q	12	29.8	75.7	96.3
80381	6 STACY	102.9 A	101.0 A	101.0 A	10.3	77.3Q	10.7	1.48	37.0Q	10.7	11	31.3	76.4	110.1
80382	7 VA 76-52-12	96.0 B	87.8 D	87.8 D	10.3	79.1Q	11.2	1.57	35.0Q	11.9*	11	28.5	75.3	101.6
80383	8 DREIFER	100.2 A	100.1 A	100.1 A	10.3	78.7Q	10.9	1.62	41.8	10.9	11	31.6	76.6	104.6
80384	9 AR 130-31	111.0 A	108.1 A	108.1 A	10.4	79.1Q	11.2	1.66	42.9	8.4	10	33.2	78.1	119.8
80385	10 MD 55-114-03	104.9 A	92.4 C	92.4 C	10.3	79.6Q	11.9	1.64	40.7	10.4	12	29.1	77.2	113.3
80386	11 ARTHUR 71	100.0 A	100.0 A	100.0 A	10.4	78.9Q	11.1	1.63	36.9Q	7.3	10	28.2	78.7	133.2
80387	12 MCNAIR 3270	69.4 F	92.9 C	69.4 F	10.3	76.2Q	10.4	1.68	39.6*	15.5Q	12	29.5	76.1	105.2
80388	13 MCNAIR 3271	90.9 C	90.9 C	89.8 D	10.4	77.3Q	10.3	1.56	38.5Q	14.2Q	16	33.0	75.1*	89.3
80389	14 FLORENCE 301	94.2 C	94.2 C	94.2 C	10.3	79.4Q	11.1	1.62	38.0Q	11.2	11	29.0	76.1	104.7
80390	15 FLORENCE X6890	98.4 B	98.7 B	98.6 B	10.5	80.0	10.7	1.54	40.1	11.9*	11	32.6	74.8*	101.6
80391	16 MD 55-36-45	107.1 A	102.0 A	102.0 A	10.3	75.3Q	10.7	1.59	43.5	9.9	12	34.5	76.8	114.4
80392	17 MD 55-36-37	104.0 A	109.0 A	104.0 A	10.4	76.0Q	11.0	1.69	43.6	10.1	11	33.7	76.6	110.7
80393	18 FL 7271A103	107.9 A	100.7 A	100.7 A	10.5	78.7Q	10.8	1.60	43.3	9.5	11	33.4	78.1	114.5
80394	19 FL 72155A101-5	97.2 B	97.1 B	97.1 B	10.5	78.2Q	11.1	1.55	42.5	11.6	11	32.0	75.1*	100.8
80395	20 TX-0-74-39	87.4 D	90.6 C	87.4 D	10.5	79.3Q	11.0	1.65	35.3Q	13.5Q	12	30.0	74.3Q	88.9
80396	21 H-73-3-3-2	90.3 C	91.4 C	90.3 C	10.2	79.1Q	12.2	1.64	35.7Q	12.7Q	11	28.5	74.8*	95.5
80397	22 AR 38-1-3-5-5	101.6 A	104.3 A	101.6 A	10.6	78.3Q	10.7	1.66	41.3	10.1	10	31.3	76.5	106.4
80398	23 AR 155-5	104.7 A	102.8 A	102.8 A	10.5	81.1	11.2	1.56	41.7	10.2	11	31.6	76.3	110.0
80399	24 NAFS 1273-2	108.3 A	108.2 A	108.2 A	10.3	80.0	10.9	1.73	41.2	11.0	14	32.1	78.3	115.8
80400	25 NAFS 1283-7	101.7 A	102.4 A	101.7 A	10.4	78.4Q	10.9	1.65	42.7	12.3Q	12	35.4	76.9	106.4
80401	26 COVER 79-20	79.4 F	84.6 E	79.4 F	10.3	79.8	12.1	1.70	41.2	14.7Q	12	30.7	73.1Q	77.5
80402	27 COVER 79-21	92.3 C	93.0 B	92.3 C	10.5	79.4Q	11.1	1.78	43.0	12.3Q	12	33.5	75.3	93.1
80403	28 COVER 79-14	102.7 A	100.5 A	100.5 A	10.7	81.4	11.2	1.56	39.9	10.2	10	30.5	76.7	107.6
80404	29 COVER 79-16	98.3 B	91.5 C	91.5 C	10.5	78.5Q	10.4	1.56	37.4Q	11.9	11	28.4	75.9	103.8
80405	30 COVER 797	98.7 B	101.9 A	98.7 B	10.5	80.0	10.5	1.59	41.1	10.9	12	30.8	76.0	100.8